

## 2.0 Proposed Action Alternative

The proposed project includes exploration drilling and testing at up to seven potential sites. ConocoPhillips Alaska Inc. (CPAI) is requesting to permit approval of ten new well locations to maintain operational flexibility, however they would drill no more than seven new wells. The Bureau of Land Management (BLM) inspected the new well locations during July and August, 2019.

Vertical seismic profiles (VSPs) are proposed at some of the new wells. Their existing suspended wells (Scout 1, Tinmiaq 2, and Tinmai 15) are included in the program for access to conduct inspection and potential abandonment. Table 2.1 provides information about the locations of the proposed new well locations and the Plug and Abandonment (P&A) well sites. The leases for the project are owned by CPAI, and they would be the operator of the proposed activity.

**Table 2.1 Well Locations**

Site Name	Activity	Lease Number	Township	Range	Section	Latitude	Longitude
Tinmiaq 14	Exploration /Appraisal Well	AA090710	9 North	1 West	22	70.11722	-152.10389
Tinmiaq 18	Exploration /Appraisal Well	AA090707	8 North	1 West	10	70.05869	-152.11769
Tinmiaq 19	Exploration /Appraisal Well	AA094166	10 North	2 West	3	70.24739	-152.35350
Tinmiaq 20	Exploration /Appraisal Well	AA095290	9 North	1 East	6	70.16108	-151.99789
Tinmiaq 22	Exploration /Appraisal Well	AA081824	11 North	1 West	15	70.30233	-152.10317
Tinmiaq 24	Exploration /Appraisal Well	AA081824	11 North	1 West	35	70.26211	-152.08622
Harpoon 1	Exploration Well	AA094454	8 North	4 West	33	70.00792	-152.90789
Harpoon 2	Exploration Well	AA094443	7 North	3 West	30	69.93792	-152.73056
Harpoon 3	Exploration Well	AA094436	6 North	4 West	7	69.89036	-152.96483
Harpoon 4	Exploration Well	AA094445	7 North	4 West	29	69.92922	-152.92317

Site Name	Activity	Lease Number	Township	Range	Section	Latitude	Longitude
Scout 1	Suspended Well	AA087899	11 North	1 East	20	70.2871	-151.96236
Tinmiaq 2	Suspended Well	AA081807	10 North	1 West	34	70.18143	-152.112967
Tinmiaq 15	Suspended Well	AA081810	10 North	1 West	9	70.235139	-152.132333

## 2.1 Description of the Proposed Action

The proposed project is described below, with main project components summarized in Table 2.2a and 2.2b. The proposed project is similar to exploration programs completed in the National Petroleum Reserve in Alaska (NPR-A) in previous winter seasons. Details are provided in the Applicant's Plan of Operations, submitted to multiple agencies including the BLM, Alaska Department of Natural Resources (ADNR), and the North Slope Borough (NSB). The estimated schedule is provided in Table 2.3.

**Table 2.2a Summary of Proposed Project- Ice Pads**

Ice Pads	Dimensions (Feet)	Area (Acres)
Scout 1 Existing Well (Inspection/P&A)	200 x 200	0.9
Tinmiaq 2 Existing Well (Inspection/P&A)	500 x 500	5.7
Tinmiaq 14 Drilling/Testing Ice Pad	600 x 600	8.3
Tinmiaq 15 Existing Well (Inspection/P&A)	500 x 500	5.7
Tinmiaq 18 Drilling/Testing Ice Pad	600 x 600	8.3
Tinmiaq 19 Drilling/Testing Ice Pad	800 x 800	14.7
Tinmiaq 20 Drilling/Testing Ice Pad	600 x 600	8.3
Tinmiaq 22 Drilling/Testing Ice Pad	600 x 600	8.3
Tinmiaq 24 Drilling/Testing Ice Pad	600 x 600	8.3
Harpoon 1 Drilling/Testing Ice Pad	600 x 600	8.3
Harpoon 2 Drilling/Testing Ice Pad	600 x 600	8.3
Harpoon 3 Drilling/Testing Ice Pad	600 x 600	8.3
Harpoon 4 Drilling/Testing Ice Pad	600 x 600	8.3
Remote Ice Camp (RIC) Ice Pad	1000 x 1000	23.0
Harpoon Base Camp (HBC) Ice Pad	1000 x 1000	23.0
Tinmiaq Base Camp (TBC) Ice Pad	1000 x 1000	23.0
Airstrip Apron (On Tundra)	400 x 400	3.7
Airstrip	4000 x 75	6.9
Comm Relay Ice Pad 1 (CR1)	400 x 400	3.7
Comm Relay Ice Pad 2 (CR2)	400 x 400	3.7
Comm Relay Ice Pad 3 (CR3)	200 x 200	0.9
Comm Relay Ice Pad 4 (CR4)	200 x 200	0.9
Exploration Support Ice Pad (E1)	500 x 500	5.7
Exploration Support Ice Pad (E2)	400 x 400	3.7

Ice Pads	Dimensions (Feet)	Area (Acres)
Exploration Support Ice Pad (E3)	400 x 400	3.7
Exploration Support Ice Pad (E4)	400 x 400	3.7

**Table 2.2-b Summary of Proposed Project- Project Components**

Project Component	Program Specifics
Drilling/Testing Locations	Up to 7 Locations
Construction/ Drilling Support Camps	Maximum number of people that may be housed in camps is 530, However the average daily usage would be approximately 350.
Access	Approximately 77 miles <sup>1</sup> of ice access. Approximately 27.6 miles of ice road spurs <sup>2</sup> . Approximately 23.35 miles of snow trail on BLM managed lands.
Water requirement	Total of 133.31 Million Gallons for the entire project.
Lake Use	Up to 77 lakes on BLM managed lands.

### 2.1.1 Access and Construction

The proposed activity would take place from December 2019 through May 2020, with the actual timing dependent upon field conditions including tundra conditions and logistical issues. The proposed schedule calls for ice pad/road construction to begin in December 2019 through March 31, 2020 (Table 2.3).

**Table 2.3 Estimated Schedule**

Activity	Proposed Start Date	Proposed End Date
Ice Road and Pad Construction	December 1, 2019	March 31, 2020
Drilling Rig D141 Mobilization	January 24, 2019*	January 28, 2019*
Drilling Rig D142 Mobilization	February 8, 2019*	February 12, 2019*
Drilling, Completion and Testing (various wells)	January 15, 2020	April 15, 2020
Drill Rig Demobilization	April 15, 2020	May 1, 2020
Inspection and Close Out (stickpicking and construction cleanup, compliance activities; conducted under summer studies ROW #FF097411).	May 2, 2020	To Be Determined

\* Approximate Dates

CPAI has identified ten potential new drill locations for the 2019-2020 exploration program. Of the ten new proposed drill locations, only seven would be expected to have activity this winter. In order to drill more than seven wells additional NEPA<sup>3</sup> would be required. Six of the proposed

<sup>1</sup> The miles listed would be if every well were drilled, since they are only drilling 7, the actual miles would be less.

<sup>2</sup> Ice Road Spur roads are roads that go to a specific location off of the regular ice road, such as to the lakes. The miles listed would be if every well were drilled, since they are only drilling 7, the actual miles would be less.

<sup>3</sup> National Environmental Protection Act of 1969.

new drill sites and the three existing well inspections and possible P&A work locations would be located in the Bear Tooth Unit (BTU) in the NPR-A under BLM jurisdiction. Four of the proposed new drill sites would be located southwest of the BTU boundary<sup>4</sup> within the NPR-A.

The proposed winter routes (ice road/snow trail) to the exploration well sites are shown on [Figure 1](#); the routing is approximate. Upon completion of use, ice road stream crossings would be slotted, breached, or weakened to facilitate breakup and minimize potential impacts to stream banks. Any snow or ice used as fill for ramps would be removed from banks in a manner that does not disturb the natural stream bank.

A tundra travel route would provide initial access into the NPR-A (via Ocean Point) for ice road construction equipment. Drilling rig and heavy equipment access to the proposed exploration wells would be by ice road from Greater Mooses Tooth 2 (GMT2) gravel pad (see Figure 1). The proposed access method for all other wells (new and existing) is ice road.

The tundra travel route would begin at an ice pad on state land near DS-2P<sup>5</sup>, head west to the NPR-A boundary, cross the Colville River at or near Ocean Point, and enter the NPR-A area and continue northwest to the proposed Program area. Access to existing suspended well Scout 1 would be by tundra travel only. Final tundra travel routes would be refined in the field to avoid hazards such as steep terrain or environmentally sensitive areas, including willow habitat, areas with thin snow cover, and culturally sensitive sites. Tundra travel routes do not require water and are not ice roads.

CPAI would construct an access ice road network to the Program area from the GMT2 gravel pad. The ice road network would have lake spurs to access water sources along the route. Pullout areas along ice roads or widened sections of ice road may be constructed at certain locations depending on field conditions.

Regulatory agencies would be contacted for approval if final routes are greater than a mile away from those shown in [Figure 1](#). As-built maps of the final routes would be prepared following construction and submitted to BLM.

Ice roads would be constructed using a combination of existing snow, water, and ice chips from approved water sources along the route. Ice roads would generally be 25-35 feet wide and six inches thick, depending on drilling rig and vehicle requirements. Rig mats or other similar items may be used on or in the construction of ice roads at selected locations as necessitated by field conditions encountered during ice road construction or during equipment movement. Such devices would be removed prior to the end of the operating season.

Ice construction activities would be performed in accordance with Alaska Department of Natural Resources (ADNR) approvals and BLM Best Management Practices (BMP's), as applicable, and water would be obtained from permitted sources. Minor re-routes may be required depending on site specific conditions at the time of construction.

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<sup>4</sup> Near BLM field camp at Inigok, Alaska.

<sup>5</sup> DS-2P- name of ice pad

### **2.1.2 Historical Properties and Cultural Resource**

The proposed drilling lies entirely within the NPR-A and within the boundaries of the NSB. Known traditional land use sites (e.g., cabins and campsites) would be avoided. The BLM does not authorize use of private property, and access across private lands would require authorization of the landowner.

A cultural resources study for site clearance was conducted in July of 2019 by Reanier & Associates, Inc. to assess any known sites, and to locate currently unknown sites. The results of the study were provided to the BLM and included information on the history of the landscape, human use of the study area since the last ice age, descriptions of the NPR-A exploration area, results of the reconnaissance survey, and conclusions and recommendations for cultural resource clearances. The records review included the Alaska Heritage Resources Survey (AHRS) database, maintained by the Office of History and Archaeology within the ADNRC; and the Traditional Land Use Inventory (TLUI) database, maintained by the NSB. There are two traditional use areas near the program. These would not be accessed as part of the program. Sites that exist within the exploration boundary would be protected with a 500-foot radius buffer to ensure no inadvertent damage would occur during exploration operations. No known cultural resources would be affected by the proposed exploration activities.

Permanent surface disturbance resulting from the Program is limited to new wells and for each well is limited to the well cellar, which is 8 feet in diameter. All other program components are temporary.

### **2.1.3 Aircraft Use**

CPAI is planning to construct a temporary ice airstrip on tundra (latitude 70.100203, longitude -152.222966) to support operations and personnel transfers. The Program would routinely utilize CPAI Otter and CASA<sup>6</sup> aircraft, but the airstrip would be constructed to accommodate a Guardian King Air emergency response aircraft if needed. The ice airstrip would include a small ice pad apron to support a connex (passenger shelter) and generators to power airstrip lights. The ice airstrip would be oriented in northeast/southwest direction and would be 4000 feet long and 75 feet wide. Approximately five flights are planned per week during the exploration drilling season. There would be no night flights, except in the case of an emergency. Fueling of the aircraft would occur at Alpine, Kuparuk, or Deadhorse

### **2.1.4 Water Use**

Water and ice chips from local permitted lakes would be used for the construction and maintenance of ice roads, ice pads, the ice airstrip, drilling operations, and camp use. Water would be pumped from lakes and transported by truck or Rolligon. Water use is estimated in Table 2.4 and actual water use is based on environmental conditions including snow cover, temperature, and maintenance needs. CPAI expects actual water use to be less than estimated water use. Water may also be hauled from additional approved sources (Kuparuk, Alpine or Prudhoe Bay).

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<sup>6</sup> CASA is a turboprop cargo aircraft.

Potable water for human use would be withdrawn from permitted lakes and treated by Alaska Department of Environmental Conservation (ADEC) approved 'Sanitherm'<sup>7</sup> potable water treatment systems in the Program area (units based at RIC and HBC). Potable water may also be hauled to the Program area from an approved water system outside the NPR-A (Kuparuk or Alpine).

Water, ice chips and snow removal would be authorized under new or existing Temporary Water Use Authorizations (TWUA) from ADNR Division of Mining, Land and Water (DMLW) and Alaska Department of Fish and Game (ADF&G) Fish Habitat Permits for fish-bearing water bodies. Not all permitted water sources would be used; CPAI permits additional sources to maintain operational flexibility (e.g. ice chip vs. water).

CPAI is requesting to permit a total of 77.7 miles of ice roads to cover possible alternative road routes. The freshwater requirements for constructing the project features (ice road/pads construction, maintenance, drilling operations, and camp use) are approximately 135 million gallons (MG) (Table 2.4). The fresh water requirement for ice road construction is approximately 1,000,000 gallons per mile of ice road. Each crew can build approximately 1 mile of road per day. Construction of a typical ice pad requires approximately 2,000,000 gallons of water. Seasonal maintenance of snow/ice roads and pads requires approximately 20% of the initial volume of water required to construct the road or pad.

As part of the maintenance process, the road or ice pads may be scarified with equipment and biodegradable traction material such as "nut plug" may be applied sparingly to high foot traffic areas to reduce slickness for safety purposes.

**Table 2.4 Estimated Water Needs**

Activity	Estimated Quantity	Unit of Measure	Water use per unit (Gallons)	Total Gallons
Ice Road <sup>8</sup>	77.7	Miles	1,000,000	77,700,000
Ice Road Spurs <sup>9</sup>	27.6	Miles	200,000	5,520,000
Ice Pads <sup>10</sup>	182.1	Acres	250,000	45,522,500
Rig Use <sup>11</sup>	7	Wells	300,000	2,100,000
Camps <sup>12</sup>	120	Days	35,000 <sup>13</sup>	4,200,000
<b>Grand Total</b>	N/A	N/A	N/A	135,042,000

<sup>7</sup> Sanitherm is a Water and Wastewater Treatment company.

<sup>8</sup> The miles listed would be if every well were drilled, since they are only drilling 7, the actual miles would be less.

<sup>9</sup> Ice Road Spur roads are roads that go to a specific location off of the regular ice road, such as to the lakes. They do not need to be as robust as ice roads and therefore require less water. The miles listed would be if every well were drilled, since they are only drilling 7, the actual miles would be less.

<sup>10</sup> See Table 2.2a for Ice Pad Information. Up to 7 drilling pads would be constructed for new wells, acreage, three existing pads and support ice pads.

<sup>11</sup> Rig use depicts water for 7 wells.

<sup>12</sup> Camp water use based 100 gallons per person (350 people average) per day for 120 days.

<sup>13</sup> Number is larger than last year because the applicant plans to treat water this year instead of the hauling that was done last year.



CPAI has also requested approval to harvest ice aggregate from lakes ([See Section 2.1.4.1 Deviation Request](#)). A total of 77 lakes could be used as water sources and all are located on BLM managed lands.

Water and ice chips would be pumped from permitted lakes and transported by trucks. All water intake hoses would have screens at the intake points to prevent entrapment of fish, regardless of whether the lake has been identified as fish-bearing. CPAI would comply with Alaska Fish and Game (ADFG) screen designs (including screen mesh no greater than ¼-inch) and would implement 0.5 feet per second or less intake velocity.

Snow cover may be removed from portions of lakes approved for water withdrawal and/or ice mining. The purpose of snow removal is to provide access for water trucks and ice chippers, installation of temporary water houses, and truck turnaround areas. Additional snow removal (beyond the minimal amount required for vehicle access and water/ice withdrawal) would be allowed from any non-fish bearing lake and grounded portions of fish-bearing lakes without additional approvals. Snow and ice chip removal from non-grounded portions of fish-bearing lakes must be approved by ADFG-Habitat Division and BLM on a case by case basis.

Lakes would be accessed via snow trail or ice road spurs from the main winter trail using the most direct route possible. Signs would be placed at lake access points to identify each permitted lake that is being actively used. Light plants would be placed on frozen lakes at the water houses and road intersections for safety purposes. Light plants are portable units about the size of a small generator unit with a stand of lights about 10 feet into the air. The light plants would be refueled on the frozen lakes (See Sec. 2.1.7) following CPAI's standard procedures for fuel transfers. All light plants would have 110% containment.

#### **2.1.4.1 Deviation to BMP B-2d request**

For CPAI's 2019-2020 winter exploration program in the NPR-A, they are requesting to use a total amount of water at three lakes that exceeds BLM's BMP B-2d.

##### ***B-2 Best Management Practice***

Objective: Maintain natural hydrologic regimes in soils surrounding lakes and ponds, and maintain populations of, and adequate habitat for, fish, invertebrates, and waterfowl.

Requirement/Standard: Withdrawal of unfrozen water from lakes and the removal of ice aggregate from grounded areas ≤4-feet deep may be authorized on a site-specific basis depending on water volume and depth and the waterbody's fish community. Current water use requirements are:

d. In lakes where unfrozen water and ice aggregate are both removed, the total use shall not exceed the respective 15%, 30%, or 35% volume calculations.

CPAI submitted detailed information for water use lakes to facilitate the BLM's evaluation regarding a deviation from B-2d.

#### **2.1.5 Drilling Operations Support**

Well activities would be accommodated by an ice pad, there are also various exploration support ice pads proposed. Table 2.2a lists the various pads, dimensions and number of acres per pad.

Ice pads may accommodate staging, drilling, testing and completion activities and support facilities. Support facilities at each location may include safety stations, satellite offices, camps, storage areas (e.g., fuel storage, equipment, miscellaneous tanks), and maintenance buildings.

CPAI uses a 500 feet buffer when siting and staking ice pads, so generally ice pads stay 500 feet from shorelines just so fuel can be stored anywhere on the pad. However, due to terrain and the number of water bodies in the area, they sometimes have pads that poke into the 500' buffer of a nearby lake. CPAI would store fuel on those pads such that fuel storage would not be within 500 feet of the water body. Edges of ice pads would always be at least 100 feet from the edge of a waterbody, and wells and fuel storage would always be at least 500 feet from the edge of a waterbody.

Furthermore, CPAI would not manipulate surface topography to construct ice drilling pads. Upon completion of proposed activities, ice pads would be chipped or scraped to pick up any incidental spills and scrapings would be hauled to an approved disposal well.

Camps would have the capability to accommodate up to a total of 530 people. However it would be rare that all the camps would be at capacity at any given time. CPAI expects that the average number of people per day for the entire program would be 350. Program population varies over time. A certain number of personnel are needed in order ensure that the program is executed safely and without environmental impact. Camps would move around to various locations and base camps as needed as the program progresses.

Four communication towers may be needed to support the exploration program. The communication towers would be 120 feet high and would be located at Comm Relay Pads 1-4 (Table 2.2a). They would be anchored with guy wires attached to concrete blocks (Deadman anchors) that are on the ice pads. The Deadman anchors weigh 11,000 pounds and are 3.6 feet by 6 feet by 6 feet. For visibility, the concrete blocks would be equipped with red flashing lights and the guy wires with 16 feet of candystripe<sup>14</sup> sleeve. Bird diverters would be used on guy wires. All communication towers are temporary and would be removed at demobilization.

### **2.1.6 Drilling and Well Testing**

The well bore design would be similar to previous North Slope exploration and appraisal wells. The wells are authorized under Drilling Permits issued by the Alaska Oil and Gas Conservation Commission (AOGCC) and BLM Application Permit to Drill. Due to the exploratory nature of the wells and federal regulations; nearly all down-hole information is confidential. No reserve pits would be constructed. All drilling activities would be conducted using drilling rigs suitable for arctic operations (Doyon 141 and Doyon 142). Well evaluation through hydro-fracture stimulation and production testing may be performed after completion of well drilling operations.

Production tests at each well may be performed as needed after production casing is set/cemented and the well is completed. Following completion, the well may be hydraulically stimulated to facilitate testing. Testing may include extended flow periods to

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<sup>14</sup> Candystripe is a plastic sleeve with red stripes that go around guy wires near the ground.



determine the productivity of the well. Produced fluids would pass through an adequately sized separator system to prevent oil carryover into the gas stream. Oil from testing would be hauled to facilities in Alpine or Kuparuk or held in tanks within lined bermed areas until the testing is completed. After testing, the oil would either be injected back into the formation from which it was produced or hauled to Alpine or Kuparuk and processed through their facilities. Produced gas will be flared.

### 2.1.7 Fuel

Fuel storage capacity totaling approximately 342,600 gallons would be expected to be required to support the 2019-2020 program. Fuel would be stored in multiple fuel containers and placed in lined, bermed fuel storage areas. All fueling and transfer operations would be performed in accordance with the Fieldwide Standard Operation Procedure (Kuparuk and Alpine) for Fluid Transfers (CPAI-005) and liners would be used as required by the Fieldwide Standard Operating Procedures for Liners and Drip Pan Use (F-006). The expected fuel storage in support of the proposed project is provided in [Table 2.5](#).

**Table 2.5 Fuel Storage**

Location	Number of Gasoline Tanks	Number of Diesel Fuel Tanks	Quantity Per Tank (Gallons)	Total Amount (Gallons)
Harpoon Base Camp	1	2	20,000 Diesel 9,800 Gasoline	49,800
Tinmiaq Base Camp	1	2	20,000 Diesel 9,800 Gasoline	49,800
Remote Ice Camp	0	3	20,000 Diesel	60,000
Remote Ice Camp	0	2	600 Diesel	1,200
Drilling/Testing Ice Pads (7)	0	1	20,000 Diesel	140,000
Existing Suspended Well (Inspection/P&A) Ice Pads (3)	0	1	9,800 Diesel	29,400
Comm Relay Ice Pads (4)	0	1	500 Diesel	2,000
Exploration Support Ice Pad (1, E1 only)	0	1	9,800 Diesel	9,800
Airstrip Apron & Support Pad (E2)	0	2	300 Diesel	600
Totals	2	15	Not Applicable	342,600

Each drilling contractor holds a Spill Prevention Control and Countermeasure Plan (SPCC) for its fuel storage facilities associated with their drilling operations. The well testing companies hold SPCC plans for their testing tanks. Additionally, CPAI has a SPCC plan for exploration activities. A spill technician with Alaska Clean Seas (ACS) would be at each drilling rig and each testing location. Each drill rig would also have a dedicated ACS technician. There would

also be a dedicated Exploration Field Environmental Coordinator that supports the entire program full time but is not assigned to one pad, rig, or operation.

Light plants and pump houses would be used at permitted water sources; small portable generators power these lights and pumps. CPAI proposes to refuel light plants and pump houses on the surface of water source lakes (at the pump house). These are also fueled every 12-hour shift. All light plants and pump houses would have 110 percent containment for fuel. CPAI uses secondary containment during all fueling operations and the pump house fuel tank would also be contained inside the pump house. CPAI has fuel transfer protocols and procedures.

### **2.1.8 Waste Management**

Wastes would be handled according to the comprehensive waste management plan required by the BLM under NPR-A IAP/EIS BMP A-2, as summarized below.

Water-based and oil-based drilling muds would be used, which include additives used to maintain desired drilling fluid properties and density. Excess drilling mud would be transported to an approved Class II injection well at Kuparuk, or the grind and inject facility at Prudhoe Bay or Milne Point. Prior to hauling away for disposal, the cuttings would be temporarily stored in cutting boxes inside ice-bermed drilling waste storage cells or tanks at the drill sites.

During drilling, CPAI anticipates having up to six leak-proof cutting bins inside permitted ice cells at each drilling location to store cuttings prior to hauling away for disposal. Each of the cutting bins would be located within an ice cell as secondary containment. The ice-bermed waste storage cells would be permitted by the ADEC Solid Waste department.

It is anticipated that up to 20,000 cubic feet of cuttings could be generated at each drill site from the drilling wells. The cell dimensions would be as large as 100 feet x 150 feet x 3 feet, giving a gross volume of 45,000 cubic feet. The thickness underneath the temporary drilling waste storage areas would be at least 1 foot thick (in addition to the drilling ice pad which is at least 2 feet thick) for a total of 3 feet of ice under the cell. The volume of wastes stored in each storage cell would be minimized; as would snow accumulation in the cell. Upon completion of activities at the well sites, the ice-bermed drilling waste storage cells would be trimmed and the ice would be hauled to Prudhoe Bay, Kuparuk or Milne Point for disposal at an approved Class II injection well.

Solid, non-burnable waste would be deposited in large dumpsters located at each site. These containers would be back-hauled to the NSB landfill at Prudhoe Bay. Any food waste that could attract wildlife would be stored in secured wildlife proof container while waiting transport.

CPAI also plans to utilize mobile (“Sanitherm”) wastewater treatment units which are authorized under an ADEC Alaska Pollutant Discharge Elimination System (APDES) permit. These units would service multiple camps and would be staged at the RIC ice pad and HBC ice pad. The Alaska Camp also contains a built-in APDES-permitted wastewater treatment system; this camp will also be located at RIC. APDES permits require treatment of

wastewater to APDES standards with confirmation sampling prior to discharge.

Treated, permitted, wastewater discharge volume is expected to average 10,000 gallons per day Program-wide. Residual sludge would be hauled out of the NPR-A to a permitted landfill. Camps with no wastewater treatment systems are equipped with wastewater tanks. Wastewater from these tanks will be collected and hauled to the Sanitherm unit or hauled to the Kuparuk or Alpine permitted wastewater treatment facilities outside the NPR-A. All wastewater treatment systems supporting the Program will meet ADEC APDES requirements.

### **2.1.9 Air Emissions**

Sources of air emissions from the operation are rig engines, camp generator engines, steam generators, mobile non-road engine and construction equipment, used oil burners, hot-air heaters, light plants and potentially well test flaring equipment. CPAI has applied for ADEC authorization for the drilling locations under Minor General Permit #1 for Oil and Gas Drilling Rigs (18 AAC<sup>15</sup> 50.390). BMP A-9 requires the use of Ultra-low sulfur diesel and evaluation of the potential for hydrogen sulfide (H<sub>2</sub>S) release indicates that significant quantities would not be expected at any drilling location. Measures and precautions associated with hydrogen sulfide are addressed in the Application for Permit to Drill filed with the BLM.

### **2.1.10 Contingency Plans**

The 2013 IAP ROD requires a company conducting oil and gas activities in the NPR-A to have certain plans, submit certain plans, and for some plans to be approved by the BLM authorized officer (AO). Conoco has submitted the following plans:

Polar Bear Avoidance and Interaction Plan  
Wildlife Interaction Plan  
Waste Management Plan  
Hazardous Materials Emergency Contingency Plan  
Weed Control Plan  
Orientation Plan

Conoco applied to the US Fish and Wildlife Service September 16, 2019 for a Letter of Authorization for incidental take of polar bears.

### **2.1.11 Abandonment and Restoration**

The winter exploration well locations do not include development (producing) wells. Any well abandonment or suspension plans would be determined prior to well completion and would be conducted in accordance with applicable BLM and AOGCC regulations and would be approved prior to enactment. Final site closure would be approved by the appropriate regulatory agencies.

Upon completion of drilling and evaluation operations, all debris would be hauled to an approved disposal site outside of the NPR-A. The ice pads would be chipped or scraped to pick up any incidental spills and the scrapings would be hauled to an approved disposal well. The

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<sup>15</sup> Alaska Administrative Code

exploration wells would be suspended for future evaluation, or may be plugged and abandoned prior to demobilization.

After the ice road and ice pads melt in the summer, CPAI would perform an inspection of each location to pick up any remaining debris and to look for potential tundra damage. This activity would take place under existing ROW FF097411.

#### **2.1.12 Community Relations**

CPAI states that they are committed to continuing their partnership with local contractors and businesses through competitive bid contracting opportunities. When reasonably foreseeable to do so, CPAI has committed to hire and, where appropriate, to provide training to Kuukpik shareholders, Nuiqsut residents, and Alaska Natives. When appropriate, local resident hire would continue to be coordinated through the Kuukpik employment coordinator to identify and place qualified individuals interested in working on the project. In addition, CPAI and its contractors assist with scholarships, career training, and internship opportunities to further expand local workforce capabilities and ensure that local residents are hired and retained as CPAI's employment requirements increase.

CPAI coordinates and hosts annual job fairs in the village of Nuiqsut, to which ice road contractors and other vendors are invited. The job fairs are an opportunity for CPAI to inform Nuiqsut and other North Slope residents about jobs available with CPAI's winter activities on the North Slope. Attendees can gather information on the specific jobs available with CPAI and its contractors, the time period the jobs would be available, and the pay scales. The job fair is an opportunity for local residents to become familiar with the planned winter operations and to talk with the people who will be hiring residents.